CLAIMS

- 1. A microchamber for nerve cell culture, which comprises a plurality of electrode patterns on a substrate for measuring a potential change of nerve cells, a plurality of compartment walls over the patterns for confining the nerve cells in a specific spatial arrangement, and an optically transparent semipermeable membrane laid over the compartment walls.
- 2. The microchamber for nerve cell culture according to Claim 1, wherein the electrode patterns are optically transparent electrodes.
- 3. The microchamber for nerve cell culture according to Claim 1 or 2, wherein the electrode patterns are at least three electrodes capable of carrying out measurement independently.
- 4. The microchamber for nerve cell culture according to Claim 1, wherein regions of the cells separated by the plurality of compartment walls are at least three.
- 5. The microchamber for nerve cell culture according to any one of Claims 1 to 4, wherein with regards to the electrode patterns and the regions separated by the plurality of compartments, the electrodes correspond one-to-one with the regions.